THE QUIVIRA COALITION'S 2008 ANNUAL REPORT

Building Resilience...One Acre at a Time

In November of 2007, the Board of Directors of The Quivira Coalition added two words to the mission statement of the organization, reflecting a new emphasis on meeting the expanding challenges of the 21st century. The words are "build resilience" and the mission statement now reads:

"The mission of The Quivira Coalition is to build resilience by fostering ecological, economic and social health on western landscapes through education, innovation, collaboration, and progressive public and private land stewardship."

When The Quivira Coalition was founded in 1997, its principle aim was to explore a 'radical center' among ranchers, conservationists, scientists and public land managers by focusing on the concepts of progressive cattle management, collaboration and improved land health. Our original mission was: "to demonstrate that ecologically sensitive ranch management and stock." It wasn't a theoretical concept – it existed on a small, but growing, number of ranches across the region. We decided we could help by spreading the news.

We spent five fruitful years promoting *The New Ranch* through workshops, tours, outdoor classrooms, demonstration projects, publications, speaking engagement, media outreach, and other educational and bridge-building activities. It wasn't just us – we were part of a broad effort at the time which successfully helped to expand the 'radical center' in the West. More and more conservationists, policy makers, ranchers, and others began to see there was an alternative to the constant brawling that had characterized the socalled 'grazing debate' for decades. This wasn't theoretical either – the collaborative process produced results as tangible as the good stewardship of the New Ranchers.

Partly as a result of this success, by 2002 we felt it was time to change The Quivira Coalition's mission statement. The 'grazing debate' had crested nationally and other conservation concerns were

economically robust ranches can be compatible."

We called this approach The New Ranch and described it as "an emerging progressive ranching movement that operates on the principle that the natural processes that sustain wildlife habitat, biological diversity and functioning watersheds are the same processes that make land productive for live-



October 2008 workshop on the Valle Grande Ranch to build bat and wildlife escape ramps on water tanks. Photo by Deborah Myrin.

taking front stage. These included: the accelerating loss of open space to sprawl (often on former ranch lands); the threat of noxious species to native biodiversity; the rise of recreational damage on public land; the threat of climate change to plants and animals (and people by extension); and a concern about how to best accomplish a generational transfer of knowledge and leadership.

Furthermore, our partnership with riparian restoration specialist Bill Zeedyk opened our eyes to a broader vision of land health and restoration, involving grass, water, cattle, and people. Our work correspondingly changed and expanded to include: a major restoration project on Comanche Creek, in the Valle Vidal unit of the Carson National Forest; the adoption of the Valle Grande Grassbank on Rowe Mesa, near Santa Fe; the creation the New Ranch Network; the implementation an Annual Conference; new workshops on ranch road repair, water harvesting, 'reading the landscape,' monitoring, and much more.

Good grazing was still the heart of our work, as was the 'radical center,' but they became part of a larger effort "to foster ecological, economic and social health on western landscapes," as our new mission stated. Our five-year plan, adopted in the fall of 2002, set straightforward goals: reach more people, affect more land, and keeping spreading the news.

(For more information on what we've accomplished, please see 'At A Glance' on The Quivira Coalition web site – <u>www.quiviracoalition.org</u>)

In summary, The Quivira Coalition has successfully evolved to meet changing values, markets, and needs in society. When we started, there was a need to create peace. Our contribution to this goal included the New Ranch and our work in the radical center. Five years later, the goal was to integrate an innovative toolbox of best management practices into an economic and ecological whole that would help heal land and advance the welfare of all who depend upon healthy land – and to spread the news.

The Quivira Coalition works principally as a catalyst for change – like the role a catalyst plays in a chemical reaction. Through our work we have lit 'sparks' across the region that have grown over time into small bonfires of change. We've encouraged ranchers to adopt conservation practices, encouraged environmentalists to value ranch-



ing, urged federal agencies to be more open to innovations, scientists to get more involved, and the public to consider the benefits of local, healthy food.

Although we were successful in our efforts, the world kept changing – which meant we needed to keep changing too.

New Plan: Although no one knows what the decades ahead will bring pre-

cisely, there are enough indicators of change to say with confidence that the 21st century will look a lot different than the 20th. Whether the concern is climate change, peak oil, ecosystem service decline, overpopulation, species extinction, food and water shortages, or something else, the challenges ahead are daunting and varied.

In the fall of 2007, The Quivira Coalition Board adopted a new five-year plan that focused on these challenges. Specifically, we chose to concentrate on building ecological and economic **resilience**. The dictionary defines resilience as "the ability to recover from or adjust easily to misfortune or change." In ecology, it refers to the capacity of plant and animal populations to handle disruption and disturbance. Resilience also describes a community's ability to adjust to ongoing change, such as shifting economic conditions, or a steady rise in temperatures.

Two broad goals motivate our work on resilience:

Reversing Ecosystem Service Decline. In 2005, the United Nations published its *Millennium Ecosystem Assessment*, a global evaluation of ecosystem services on which human well-being and environmental health depend. These services include the provision of food, fresh water, wood, fiber, fuel, and biodiversity; climate, flood, pest and disease regulation; nutrient cycling, soil stability, biotic integrity, watershed function, and photosynthesis; and spiritual, educational, recreational, and aesthetic experiences. **Relocalizing Food.** Relocalization will likely dominate our lives in the upcoming decades. The inevitability of rising energy costs mean more and more of our daily lives, from food production to where we work and play, will be increasingly relocalized at local and regional scales. This won't be by choice, as it is currently, but by necessity.

The Quivira Coalition works towards both goals taking a "land health" approach to our work. By starting at the level of soil, grass, and water we apply adaptive management methods that restore and maintain ecosystem functions.

In our plan, The Quivira Coalition aims to build resilience through:

(A) Improving land health: We can help address ecosystem service decline on a local level by managing land, conducting restoration projects, getting people involved in demonstration projects, encouraging land literacy and monitoring, and producing local food.

(B) Diffusion of knowledge and innovation: We seek out ideas and practices that work and share them with a diverse audience. For example, a great deal of positive energy is being generated at the nexus of agriculture and ecology today by a number of farms, ranches, businesses and other organizations. Sharing these practices is critical to their adoption.

(C) Building local capacity: We can continue to help build capacity (economic and ecological) among individuals, landowners, associations, wa-



The confluence of Comanche and Costilla Creeks, Valle Vidal, New Mexico. Photo by Avery C. Anderson.

Quivira Coalition 2008 Annual Report

Riders bring supplies and refreshments to volunteers during a riparian restoration workshop on Comanche Creek, July 2008. Photo by Ellen Herr.



tershed groups, and communities through handson training, workshops, clinics, mentoring, granting, and other activities.

(D) Promoting the concept of 'conservation with a business plan: Conservation needs to generate revenue to support itself. One way to accomplish this will be to work at the nexus of sustainable agriculture and ecology, especially as local communities become more willing to buy local products.

(E) Strengthen diverse relationships: We continue to emphasize relationships – among people, between people and land, and between ecological processes. Unfortunately, these bond have been damaged over the years. The job now is to mend these relationships and try to make them healthy again.

To accomplish our goals, we divided our work into three Program areas:

Our **Education & Outreach** program area includes an Annual Conference, publications (Journal, bulletin, books, field guides, other); educational events (outdoor classrooms, seminars, workshops, tours, special events, etc.); Web Site (<u>www.quiviracoalition.org</u>,); and, outreach (theme workshops, public speaking, writing, participation in events, meetings, retreats etc.)

Our educational work has included: conferences, clinics, workshops, outdoor classrooms, publications, trainings, lectures, and tours on topics as diverse as drought management, riparian restoration, improving ranch roads, conservation easements, reading the landscape, monitoring, water harvesting, low-stress livestock handling, grassbanks, and grassfed beef.

Our events are attended by ranchers, scientists, environmentalists, public land managers, and many members of the public.

Land & Water: The Valle Grande Ranch (a 36,000-acre Forest Service allotment near Santa Fe), Red Canyon Reserve (320-acres of private property near Socorro), Land and Riparian Restoration Demonstration Projects ~ (www.comanchecreek.org), The New Ranch Network (www.newranch.net), and Land Health Services (for fee services).

The activities in this program area are principally on-the-ground projects that also have a strong networking element. Their goals – land health improvement, sustained prosperity, food production, restoration, dissemination, and localization – are novel or experimental. As we test and improve them, through the process of adaptive management, we will communicate our progress through the Education & Outreach Program.

Conservation and Ranch Leadership and Youth (CARLY):

There are few challenges more important at this moment in time than encouraging the next generation of leaders in conservation and ranching; and few are more daunting than creating the opportunities they need to learn from mentors and put new knowledge to work.

Society faces a double-bind: just when we need to confront a crescendo of global challenges, including climate change, energy depletion, and food and water shortages, we face the additional challenge of decreased interest in nature and agriculture among today's youth. Not only has the population of farmers and ranchers dwindled to 2% of the total population (down from 40% in 1920), new research shows decreasing participation since the 1990s in outdoor pastimes, including hunting, fishing, and camping, particularly by young people.

All of this points to an impending crisis. For example, a recent report in the *Proceedings of the National Academy of Sciences* says these trends could curtail conservation efforts in coming years as a general appreciation for nature declines among the next generation.

Ironically, this crisis is occurring just as the general public's interest in organic and local food, animal welfare, sustainable ranching, and the protection of open space are at an all time high. At first glance, this seems like good news for farm-

ers and ranchers, until one understands that the average age of a rancher is 62 – and that the next generation isn't coming along in sufficient numbers to keep their good work going for much longer.

Conservation is in a similar situation. While the general public's concern for the environment, particularly concerning climate change, renewable energy and sustainable use issues, is very high, many indications suggest that young people are not as interested in conservation careers as they have been in the past.

Which raises a very important question: who's going to pick up this vital work when the current generation of farmers, ranchers and conservationists retires?

We decided, therefore, to create **apprentice and internship opportunities** for the next generation of conservation and agrarian leaders. Today's young adults (and young-at-heart) need onthe-ground opportunities to train with successful practitioners so that vital experience-based knowledge can be transferred to a new generation of pathfinders.

Taken together, The Quivira Coalition can make a contribution to meeting the challenges of the 21st century by sharing innovation through educational opportunities so that we may all look, listen, and learn.

All of this work involves creating a "new path" – to quote Wendell Berry at our 7th Annual Conference – since many of the challenges that it addresses are novel (though some are old – a concern for land health is as old as agriculture, for example). Fortunately, for the past ten years, The Quivira Coalition has been carefully laying the groundwork for this new path – though we didn't look at it that way at the time.

But we do now.



Aimee Danch builds an upland erosion control structure (one rock dam) during a Dry Cimarron Restoration Workshop, Rainbow Ranch. Photo by Avery C. Anderson.

THE QUIVIRA COALITION'S 7TH ANNUAL CONFERENCE

Background: The original goal of our Annual Conference, which began in 2002, was to create a neutral place where ranchers, conservationists, scientists, public land managers and members of the public at-large could meet, talk, look and listen. The second goal of the event was to disseminate innovative ideas about progressive cattle management, riparian restoration, scientific monitoring, land stewardship, food production, economic diversification, conservation strategies, collaborative models, and many other new (and rediscovered) approaches to western rangelands.

The Conference emphasizes *hope* – that there are answers to the multiplying challenges confronting us, and often these answers can be found already at work on a variety of farms, ranches, and natural areas across the region. Too often, however, this good work remains isolated, and the people doing it – or who want to learn about it – too distantly removed from one another. The Conference has successfully

bridged this isolation for many people and given many hope for a brighter future.

The Quivira Coalition's Seventh Annual Conference

"Building Resilience: Creating Hope in an Age of Consequences"

Our Seventh Annual Conference, held January 17-19th at the Marriott Pyramid Hotel, in Albuquerque, drew 500 people over the course of the three-day event, including 112



Thursday - Saturday, January 17-19, 2008 Albuquerque, New Mexico

ranchers. 164 people attended the Range School, prior to the Conference, and 168 attended our symposium on Water Harvesting, featuring Brad Lancaster and Bill Zeedyk.

Attendees came from 25 states, as well as Mexico and Australia. Speakers came from Kenya, France, Kansas, Georgia, Arizona, New Mexico, Texas, Montana, California, Colorado, and Utah. Topics included ecology, archaeology, energy, food, wildlife, conservation, goats, sheep, elephants, lions, easements, living with livestock, common wealths, bad roads, good grazing, and making a profit.

The Conference featured three international speakers – Michel Meuret, from Avignon, France, and Jonah Western and John Kamanga, from Kenya – in addition to ecologist Lance Gunderson, archaeologist Eric Blinman, agrarianist Wes Jackson, energy experts Mark Sardella and David Bacon, Navajo sheepherders Roy Cady, Jay Begay, and Collen Biakeddy, and many others.

But perhaps most important, the Conference theme – resilience – went over extremely well with

attendees. It represented a bit of a gamble on our part – would folks take to a theme that not-so-subtly raised "gloomy" questions about our ability to withstand the surprises inherent in climate change, Peak Oil, water and food shortages? The answer from the speakers and Conferences-goers was a resounding 'Yes!' The consensus was: resilience is here to stay.

The 7th Annual Conference was funded through sponsorships and registration fees.

VALLE GRANDE RANCH/ROWE MESA GRASSBANK

Background: The Rowe Mesa Grassbank was created in 1998 by Bill deBuys and the Conservation Fund as a pilot project to demonstrate the potential of grassbanks as a conservation tool on public land and as to support rural economies in northern New Mexico. The expectation was that a successful demonstration would lead to other public lands grassbanks being created on other forests. However, after eight years in operation, there are no other federal lands grassbanks in operation or on the drawing boards that we are aware of. By far the greatest challenge is financial. The second challenge is leveraging conservation benefits effectively. On both fronts, the Rowe Mesa Grassbank ultimately fell short (for more information see "Grassbank 2.0" on the Quivira web site (www. quiviracoaliton.org). A major motivation for creating the Grassbank was to remove a bottleneck to the reintroduction of fire into the landscape of our national forests. The lack of alternative grazing land to take cattle while

prescribed fires were being implemented prevented a number of treatments from occurring. Cattle come to the Grassbank for 2-3 years to allow sufficient time for treated areas to recover. While meeting this objective is important, we learned that other conservation needs are also pressing, including restoration and protection of riparian areas, general grazing management, and conflicts with other public land uses such as recreation. In 2006, The Quivira Coalition transitioned the Grassbank into the Valle Grande Ranch, which included a grassbank component. The goal was to run a sustainable grassfed beef operation on public land while accomplishing the original goals of the Grassbank.

In 2008, despite a very restricted budget, a great deal was accomplished:

- The Grassbank hosted 177 cattle from the neighboring Barbero Grazing Association for the summer, which allowed time for a 1200acre meadow burn to recover. The combination of rest and good rainfall on the north end of the mesa resulted in the Barbero Allotment having exceptionally high production during 2008.
- In collaboration with the USDA's Jornada Experimental Range, eleven Criollo and twelve angus cross cattle were grazed on the Madrid pasture for the summer. Criollo are a heritage breed descendents of the original animals brought to the New World by Spanish colonists. The animals were gathered and weighed



Cattle on the Valle Grande Ranch. Photo by Craig Conley.

monthly to compare weight gains. The data collected and the experience gained will be used to develop a larger, more rigorous experiment that compares the performance of Criollos with popular European breeds.

- QC staff participated in the newly created Pecos and Eldorado farmer's markets. In addition to providing an outlet to sell beef, these venues provided a great outreach opportunity to talk about the connection between land health and food.
- A group of students from the Executive MBA program at the Anderson School of Business, at the University of New Mexico, conducted a local marketing study for Rowe Mesa grassfed beef. They concluded that there is a vi-

able market for grassfed beef in the Santa Fe area but consumers want to purchase beef in smaller quantities due to storage and budget constraints.

- Unfortunately, beef sales were down by half from 2007's sales, probably due to the recession, which hit in the fall.
- The entire Quivira Coalition cattle herd (56 animals) was sold in the fall, due to deteriorating economic conditions. This also allowed us to shut the ranch down completely for the winter to reduce costs.

Funding for operations of the Valle Grande Ranch provided by the McCune Charitable Foundation, and Cattle and beef sales.



Rounding up cattle on the Valle Grande Ranch. Photo by Avery C. Anderson.

Rowe Mesa 2008 CFRP COMMUNITY OUTREACH

In January of 2008, Craig Conley and Catherine Baca visited Pecos Elementary teachers to discuss how The Quivira Coalition could help with community outreach that would target the younger and older generations in the Pecos area. The teaches felt that Quivira could be of assistance with the Science Extravaganza, the Science Fair, and education related to Bats and Forest Health.

At the March 28, 2008 Science Extravaganza Craig Conley presented a talk on forest heal, the Collaborative Forest Restoration Project on Rowe Mesa and what happens when a rain drop hits bare ground. Elementary students K thru 5th grade attended the presentations on a rotating basis and each presenter was allowed 20 minutes for each class. Craig's presentation was well received by the students and many expressed their desire to "grow up" to work in the forest like him. Craig receive approximately 11 letters from the students thanking him for the information and helping them to understand water, soil, plants, livestock and forests.

The Science Fair was held on April 23, 2008. Craig Conley attended as a judge for the students science projects. Science projects were submitted by 3rd, 4th and 5th graders. The Fair involved eight other judges from the Pecos community. Conversations with these other judges provided an excellent opportunity to talk about the restoration activities occurring on Rowe Mesa. The quality of projects overall was very high and included far more outdoor experiments and observations than two years ago. On May 1, 2008 Dan Taylor from Bat Conservation International, Craig Conley and Catherine Baca from The Quivira Coalition addressed 50 5th grade Pecos Elementary school students and teachers on the topic of Bats and Forest Health.

Dan Taylor from Bat Conservation International spent two days in the Santa Fe area educating the Pecos students, local ranchers and general public on the importance of bats in our ecosystem.

His presentation to the Pecos 5th graders covered a wide range of topics on bats and their importance as primary predators of night-flying insects. He also described their importance as plant pollinators and seed dispersers in the Southwest.

Dan and 13 participants spent the next day building wildlife escape ramps for on stock watering tanks. Ramp building took place at headquarters of the Valle Grande Ranch owned by The Quivira Coalition. In preparation for all the above work, a press release was submitted to Stacy Matlock, reporter with the Santa Fe New Mexican.



Dan Taylor from Bat Conservation International. (Photo by Veronica Medwid)

New Ranch Network

Background: In the fall of 2002, the Board of Directors of The Quivira Coalition decided to implement a new program called the New Ranch Network. The goal of the New Ranch Network (NRN) is to respond to the specific needs a landowner, association, or community and give them whatever assistance we can through a network of ranchers, scientists, consultants, specialists, conservationists, volunteers and others. The purpose is to assist a **rancher** or other landowner in 'making the leap' to progressive stewardship through collaboration.

This assistance is in the form of referrals, coaches, mentors, specialists, a grant program, and a web-based Directory (see <u>www.</u> <u>newranch.net</u>) Typical assistance includes: helping a rancher develop a planned grazing program; organizing a low-stress livestock handling clinic; finding a mentoring rancher for someone who needs one; making a small grant to a landowner; linking a scientist or graduate student with a rancher; helping to start a watershed-based collaborative effort; organizing tours for local ranchers; finding an apprentice or a young rancher to work with a landowner; or delivering monitoring or mapping services.

The NRN grants program in 2008 was supported by U.S. Forest Service, and the Dixon

Water Foundation, of Dallas, Texas. It was an active year. Range rider/herder grants were awarded to four Forest Service allotments in northern New



Mexico and Arizona, including the Capulin allotment in Taos Canyon, two allotments



(Tio Grande and San Antonio) in the Tres Piedras Ranger district, the Barbero allotment in the Pecos Las Vegas District and the Horsesprings allotment and Double Circle allotment located in the Clifton Ranger District, in eastern Arizona. In all allotments, range riders played a key role in pasture management and reducing potential conflicts with users and neighbors by ensuring gates were closed, fences repaired where possible and stray cattle returned to the herd.

In addition to the supporting the Range Rider program, NRN grants supported three workshops related to grazing management, and ranching related management.



OJO ENCINO

BuildingCapacity with the Ojo Encino Chapter of the Navajo Nation

Background: In 2005, The Quivira Coalition was approached by members of the Ojo Encino Ranchers Committee (OERC), a recognized committee of the Ojo Encino Chapter of the Navajo Nation, to request assistance and support for a two-day workshop aimed at developing long-term grazing plans for recently treated rangelands. Three years after the initial workshop, OERC in partnership with The Quivira Coalition, has developed individual ranch management plans for almost all twenty-one member ranch units.

What began as a two-day grazing management workshop has grown into a multifaceted effort including stream channel restoration, grazing management, vegetation management, monitoring, and erosion control. In many places there has been a two to four-fold increase in forage production and numerous broader ecological benefits. Maybe even more importantly, the community is reengaged in the management of their land and adjoining Navajo Chapters are interested in adopting the model.

The ultimate goal of the Ojo Encino Project is to build sufficient organizational capacity within the Chapter so that members can develop strategic plans, implement projects and administer grants without outside assistance. Both The Quivira Coalition and the Ojo Encino Chapter have gained important 'lessons learned' from their relationship and are eager to share these with

other communities, so they can begin

developing similar capabilities. Quivira believes this successful partnership can be replicated with other Tribal communities and ultimately taken to scale.

2008 initiated the first year of a three-year Targeted Watershed Grant from EPA to the Rio Puerco Alliance – much of which is focused on the Ojo Encino Chapter. The Quivira Coalition is supporting the project by providing technical and coordination support for a number of program areas. In 2008, over twelve miles of roads were treated for drainage problems or were closed; three 2-week long youth erosion control projects, and a youth horsemanship program with 12 students were implemented.

The funding provided by the EPA grant is now being supplemented by a grant from the Christensen Fund which was awarded to The Quivira Coalition in 2008. The purpose of the Christensen Fund grant is to support Ojo Encino outreach to surrounding Chapters regarding land stewardship practices. In addition the Christensen grant is supporting a pilot study to apply the immuno-contraceptive PZP to feral and non-feral horses with the goal of slowing the growth in the unmanaged horse population on the reservation.



Reviewing land health during a Planned Grazing workshop. Ojo Encino, N.M. Photo by Craig Conley.

RIPARIAN RESTORATION PROJECTS

COMANCHE CREEK

Background: Since 2002, The Quivira Coalition has directed an innovative, collaborative restoration effort in Comanche Creek and its 27,000-acre watershed, which is degraded from historical hard use, with the goal of improving the survival chances of the native Rio Grande Cutthroat Trout – New Mexico's state fish. Over the past five years, a substantial effort has been mounted in the watershed, including the construction of over 200 in-stream structures and bankside exclosures whose aim is to reduce erosion, improve water quality, and restore riparian vigor to the creek.

Throughout the American Southwest and across arid landscapes of the world, rivers are undergoing an epoch of channel downcutting characterized by the loss of floodplain access; reduced sinuosity; accelerated rates of stream bed and bank erosion; reduced bank storage; radical fluctuations between flooding and no flow events; loss of wetlands and wetland habitats; and declines in wildlife and fish species diversity and abundance.

Comanche Creek is typical. Its past troubled condition, including a steep decline in the population of Rio Grande Cutthroat Trout (RGCT) over the decades, is clearly a product of past human land uses within the watershed, including extensive timber clearcutting, road construction, overgrazing and mining. Like most members of the trout family, Rio Grande Cutthroat Trout require clear, cold water, naturally-fluctuating flows, low levels of fine sediment in channel bottoms, welldistributed pools, stable streambanks, and abundant stream cover (<u>http://www.westerntrout.org/</u> <u>trout/profiles/rgct.html</u>).

Water quality at Comanche Creek has been monitored by the New Mexico Environment Department (NMED) as part of the Total Maximum Daily Load (TMDL) process. The TMDL process has identified exceedences of stream bottom deposits, aluminum, and temperature standards. Investigation into the origin of these fine sediments demonstrated that they were coming from: hillslopes with unconsolidated soils; destabilization of stream banks; overgrazing by herbivores; roadcuts that have unconsolidated soils; culverts and bridges that alter flow and increase erosion; roads lacking proper drainage features; and headcutting in Comanche Creek and its tributaries.

As a result of this analysis, Comanche Creek was selected by New Mexico Department of Game & Fish (NMDG&F), the USDA Forest Service and NMED for accelerated recovery of the Rio Grande Cutthroat Trout to mitigate its potential listing as an Endangered and Threatened candidate species.



Building a Zuni bowl on Springwagon Creek. Valle Vidal, N.M. Photo by Tamara Gadzia.



Building a post vane structure on Comanche Creek, Valle Vidal, N.M. Photo by Avery C. Anderson.

In 2008, restoration work on Comanche Creek took place between July 12th-19th. Accomplishments included:

- Participation by 94 volunteers, three Quivira Coalition staff members and four Riparian Restoration specialists.
- 83 drivable cross drains on FS road 1905 from the La Belle parking area to top of watershed and 2 culverts were removed in order to improve the creek so that trout can move up into Comanche Creek headwaters.
- Project assessment by one contractor, various QC staff members, five volunteers utilizing 44 volunteer hours assess the creek for functionality and structure maintenance needs.
- Comanche Point Gully Induced Meandering project was also reviewed and has shown great response and is now well vegetated.
- Photo Documentation by 4 volunteers, various staff members and 48 hours of volunteer time

 78 permanent photo points were revisited and documented.
- Vane Installation Workshop on Middle Reach utilizing 3 restoration specialists, 4 QC staff members, 63 volunteers, utilizing 940 volunteer hours. Thirteen new post vanes to enhance cutbank treatments were installed and

42 post vane maintenance issues resolved. Quivira Coalition 2008 Annual Report Twenty tons of rock moved was moved and 444 cedar posts used.

Willow cuttings/plantings/sedge planting within and around structures.

On Springwagon Creek a zuni bowl was built to repair the wet meadow headcut above the raised culvert inlet project with the assistance of the Albuquerque Wildlife Federation

Geomorphology for Gold and Comanche

Creek treatment locations completed and included a longitudinal profile, cross sections, pebble counts, erosion

control monitoring, mapping, and photo documentation

 A project tour July 20th was lead by Bill Zeedyk with 42 people participating.

Funding for the 2009 field season on Comanche Creek was supported by the Skylark Foundation, the New Mexico Community foundation, The Quivira Coalition and a grant from the River Ecosystem Restoration Initiative.

Many thanks to volunteers from New Mexico Trout, Truchas Chapter Trout Unlimited, the Albuquerque Wildlife Foundation and the general public for their dedication and hard work in making our Comanche Creek project a success.

CAÑON BONITO - WETLAND HABITAT Restoration project

Cañon Bonito is located on private land just east of Wagon Mound, New Mexico and as a result of historical uses, has downcut and degraded over time causing wet meadows to dry out and the water table to fall. Over the past three years, The Quivira Coalition in conjunction with ranch owner Mike Reardon, Zeedyk Ecological Consulitng, LLC, Dryland Solutions, Inc., and Resource Management Services, LLC, have worked to implement a restoration project with the goal of increasing the amount and species diversity of riparian vegetation along with year-round availability of water in the creek. Funding for this project is supported by the Rocky Mountain Elk Foundation, The Wild Turkey Federation, The Quivira Coalition, The Quivira Coalition's Clarence Burch Award, Vendla W. Reardon, Philip A. Bartlett, and the Cañon Bonito Ranch.

Since 1997, the ranch has been managed for wildlife and has an extensive brush control program, with 2500 acres treated to date. Not all trees are removed, some remain and edges of the treeline are trimmed to create a protected area for wildlife. Larger trees are pushed and burned with burned areas being re-seeded. The ranch has implemented 2 controlled burns, 1998 and 2007. These grassland restoration and management goals have helped rejuvenate habitat for elk, turkey and deer. The ranch currently runs cattle on a lease basis only during the dormant season (Nov. 1st to March 1st) and usually every other year, depending on vegetation amount and quality. This riparian and wetland restoration project is being designed and implemented in several phases, with phase I and II complete and phase III planned for 2009.

Currently, the wet meadow that adjoins Cañon Bonito supports primarily upland grass species like blue grama. By raising the water table, riparian species will increase within the creek and the meadow will begin to grow wetland species of forbs and grasses that have higher protein content than upland species. This increase will provide a year-round supply of nutritious food, surface-water and cover for elk and other wildlife during normal and drought conditions.

During phase I, two cross vane low-water crossings, seven boulder weirs and one rock baffle were



installed along the upper reach where the channel is deeply incised and below the level where it can re-wet the meadow, and a section of the ranch road was relocated to an upland site.

Boulder weir structures help raise the level of the bed by slowing the water, re-wetting the banks above the cobble layer, allowing fine sediments to deposit and create a place for willow and other riparian species to grow. Boulder baffles deflect the flow left or right to encourage straight reaches to meander adding additional feet to the channel length causing the water to slow, sediment to deposit and new point bars to form where vegetation can colonize. Phase I was completed in December, 2007. During Phase II, eighteen boulder structures (baffles and weirs) along a half mile reach of the creek were installed to induce meandering and reconnect the incised reach with it's floodplain. Phase II was completed in December, 2008.

Prior to start of the project, photo monitoring points were established at sites that reflect changes in vegetation and stream channel over-time. Photos are re-taken twice a year, in the spring and early fall. Vegetation cross-sections have been established along several point to document increase in vegetation amount and change in species composition. Structure performance is monitored after winter runoff and monsoonal events and are checked for damage and needed repairs.



Phase I: Upper cross-vane/lower-water crossing (left). Boulder weir (right)





View of Phase II reach from ridge above Boulder weir (right). Photos by Mike Reardon.

CARLY

Conservation and Ranch Leadership and Youth (CARLY):

In April, we hired Avery Anderson to implement the CARLY program. Avery is a recent graduate of Yale's Forestry school and came to The Quivira Coalition for a summer internship in 2007. Her goal was to concentrate on the Apprenticeship component of CARLY first, which is divided into:

- Conservation: This is a leadership program in conservation at The Quivira Coalition. The interns and apprentices participate in every Quivira activity, thus being exposed to our conservation goals and methods. During the second year, he or she chooses a project that fits their interests and career goals from among our activities and focus on carrying out that project. Participants learn about riparian ecosystem function, mapping, monitoring, project planning and implementation through trainings, workshops, business development, assisting with land and water projects and work with restoration specialists.
- New Ranch Manager: The New Ranch Manager Apprentice position is targeted at young people who have a sincere commitment to employment and life in sustainable agriculture. We seek applicants who are willing and able to make a two

year commitment to a mentoring program that offers experiential training in all aspects of a sustainable and resilient agricultural enterprise. Aspects of the curriculum include animal husbandry, range health monitoring, pasture rotation planning, planning/planting of the forage chain necessary for grass-fed animals, herding, road restoration/maintenance, range infrastructure maintenance, marketing grass-finished beef, business planning, and low-stress livestock handling. In addition, the curriculum includes a series of professional development opportunities. Apprentices emerge from the program with tangible skills, both technical and interpersonal, that are essential for successful employment as a ranch/land manager.

EARLY SUCCESSES: In early 2009, The Quivira Coalition and the San Juan Ranch, a sustainable ranching operation in the San Luis Valley of CO, partnered to launch the first iteration of the CAR-LY New Ranch Manager Apprenticeship Program. We had 58 inquiries for the position, and ultimately hired Amber Reed, an extraordinary young woman from Leadville, Colorado.

In addition, The Quivira Coalition has partnered with Earth Works Institute, another Santa Fe nonprofit, for a joint Conservation Internship program during the summer of 2009. The purpose of the

Conservation and Ranching Leadership and Youth CARLY

3-month Internship is to advance the careers of promising young adults through on-the-job training in both organizations.

THE SAN JUAN RANCH: The San Juan Ranch, owned by George Whitten and Julie Sullivan, is located in the San Luis Valley of south central Colorado. George is a third generation rancher in the San Luis Valley. A certified trainer in Holistic Management, George is motivated by his experience that ranching and conservation are inherently intertwined. Julie has a master's degree in environmental education, and worked for 10 years as a professor in Audubon's Expedition Institute (through Leslie University). Both have a passion for teaching. Together they have developed a successful business model. Their animals are grassfed from start to finish, and their beef is certified organic. In addition, George and Julie are knowledgeable about rangeland health, and have been trained in low stress livestock handling.

NEW RANCH MANAGER APPRENTICE POSI-TION: In cooperation with The Quivira Coalition, George and Julie are in the process of designing a comprehensive curriculum for the CARLY program. Aspects of the curriculum will include animal husbandry, range health monitoring, pasture rotation planning, Holistic Management, planning/planting of the forage chain necessary for grassfed animals, herding, road restoration/ maintenance, range infrastructure maintenance, marketing grass-finished beef, business planning,

San Juan Ranch. Photos by Avery C. Anderson.

low-stress livestock handling and small scale gardening. In addition, the curriculum will include a series of scheduled professional development opportunities including field trips to other progressive ranches as well as relevant training opportunities that present themselves during the course of the year.

Funding for the CARLY program in 2008 was supported by The Thaw Charitable Trust, Panta Rhea Foundation and the Dixon Water Foundation.





CONTRIBUTORS

Many thanks to those who contributed during our Land and Water Campaign and throughout 2008.

<u>Major</u>

Audubon TogetherGreen Fellowship Philip A. Barrett The Christensen Fund The Dixon Water Foundation Healy Foundation Judith McBean Foundation McCune Charitable Foundation Messengers of Healing Winds Foundation

Sustaining

- The Animas Foundation Anthony Anella The Biophilia Foundation The Bybee Foundation Bradshaw-Knight Foundation Center for Whole Communities Compton Foundation, Inc. William S. Cowles, Jr., Los Trigos Ranch CS Cattle Company Earth Friends Wildlife Foundation Grasslans Charitable Foundation Martha-Ellen Tye Foundation
- Panta Rhea Foundation Vendla W. Reardon Barbara Roastinger & Henry Oliver II Family Foundation Lydia B. Stokes Foundation The Sulica Fund Thaw Charitable Trust The Onota Fnd

National Forest Foundation The New Cycle Foundation New Mexico Community Foundation Patagonia Pete Pulis, Starcreek Ranch Pleiades Foundation Ranney Ranch Rio Grande Return The Skylark Foundation Sopris Foundation Taos Soil and Water Conservation District

Contributing

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	Nick Martinaz
Richard & Diane Collins Leta Collord William C. Courles, Inc. Let Trings Deach	Tom and Saide Mann

QUIVIRA COALITION 2008 CASH FINANCIAL REPORT

All financial documentation is shown before 990 tax reporting and annual audit.

Assets and Ordinary Income Period ending December 31, 2008

Α	SS	e	ts

	Current Cash Assets Fixed Assets Other Assets	\$162,741 \$1,627,383	
		\$9,726	
	Total Assets	\$1,799,850	
Liabilities			
	Current	\$38,584	
	Long Term	\$76,247	
	Total Liabilities	\$114,831	
Income			Percent
	Program Contractual	\$37,532	4%
	Program Grants	\$470,379	54%
	Public Contributions	\$223,372	26%
	Registration Fees	\$54,087	6%
	Beef and Product Sales	\$59,853	7%
	Other .	\$21,713	3%
			-

Expenses Period ending December 31, 2008

		Percent
Advertising and Promotion	\$1,505	о%
Computer Hardware/Software	\$2,940	о%
Event Food	\$43,522	6%
Organizational Insurance	\$8,341	1%
Licenses and Fees	\$7,008	1%
Program Materials and Supplies	\$7,521	1%
Office Supplies	\$2,594	о%
Payroll Expenses and Benefits	\$322,506	43%
Postage and Delivery	\$5,225	1%
Professional Fees	\$201,751	27%
Printing and Reproduction	\$12,590	2%
Property Taxes	\$1 , 770	٥%
Office, Venue and Equipment	\$7,860	1%
Resale Products	\$13,791	2%
Telephone and Utilities	\$11,142	1%
Travel	\$45,023	6%
Cattle - Cost of Sales	\$11,052	1%
Cattle Maintenance Costs	\$42,472	6%
Maintenance and Repairs	\$8,564	1%
Other	\$1,255	0%
	\$758,431	

Programs: \$549,397 (72%) Administration: \$170,201 (23%) Fundraising: \$38,833 (5%)

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Mike Archuleta Llana Blankman Nichole Carnevale Nansy Carson Larry Cary Judith Dyess Thomas Garcia Guy Glosson Cheryl Goodloe Mike Jones Corrie and Tom Knapp KT LaBadie George Long Maryann McGraw Ruben Montes Tarry Pesola Sheryl Russell Melissa Savage Dave Stewart Priscilla Stollenwerk Dan Taylor Rebecca Watters

Many thanks to <u>Cullen Hallmark</u> for all his work on behalf of The Quivira Coalition.

We also send a special thank you to our partners and supporters:

- Albuquerque Wildlife Federation
- Bat Conservation International
- Cañon Bonito Ranch
- Cañon Rio Creations, LLC
- Cibola NF, Sandia Ranger District, Sandia Ranger Station
- Cimarron Watershed Alliance
- Community Bank, Santa Fe
- The Conservation Fund
- Direct Mailing Services, LLC
- Drylands Solutions, Inc.
- Earth Works Institute
- Environmental Protection Agency
- Four Corners Institute
- Horizon Organics
- I.T. Partners, LLC
- Marriott Pyramid Albuquerque, NM
- McNultyZahm, LLC
- New Mexico Department of Game and Fish
- New Mexico Environment Department ~ Surface Water Quality Bureau
- New Mexico Trout
- NRCS-CIG Grant Range Riders

- Ojo Encino Rancher's Committee
- Paper Tiger, Santa Fe
- Pecos/Las Vegas Ranger District, USFS
- Questa Ranger District, Carson NF
- Rainbow Ranch
- Rangeland Hands, Inc.
- Resource Management Services, LLC
- Rio Puerco Watershed Alliance
- River Source, Inc.
- Sandy's Services, LLC
- San Juan Ranch
- Santa Fe Watershed Association
- Steve Vrooman Restoration
- Stream Dynamics, Inc.
- Taos Soil and Water Conservation District
- Trout Unlimited Truchas Chapter
- US Forest Service, Region Three
- USDA Natural Resource Conservation Service
- USDA NRCS Las Vegas Office
- Wind River Ranch
- Zeedyk Ecological Consulting, LLC

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